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Recent developments, challenges and opportunities in commodity markets

Note by the UNCTAD secretariat

Executive summary

The present background note reviews recent developments in key commodity markets and analyses factors that contributed to the trends in commodity prices observed in 2017. Commodity markets displayed diverse patterns in 2017. While prices of minerals, ores and metals increased, in particular during the second half of the year, prices of food commodities and agricultural raw materials decreased significantly. Overall, commodity prices remained significantly below their peak values of 2011. The background note, therefore, explores some policy issues related to recent developments in global commodity markets and suggests recommendations that could help commodity-dependent developing countries to achieve sustainable development and inclusive growth.

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Introduction

1. In its paragraph 208, the Accra Accord gave a mandate to the Trade and Development Board of the United Nations Conference on Trade and Development (UNCTAD) to establish a multi-year expert meeting on commodities. The mandate was reaffirmed in paragraph 17 of the Doha Mandate of 2012, which extended it to 2016, and in paragraph 100 of the Nairobi Maafikiano, adopted at the fourteenth session of the Conference in 2016, which further extended the mandate through 2020. The present meeting is the tenth session of the Multi-year Expert Meeting on Commodities and Development. The topics for the session were approved at a meeting of the extended Bureau of the Trade and Development Board, held on 22 November 2017, and endorsed by the Trade and Development Board at its sixty-sixth executive session.

2. This background note analyses commodity market developments during 2017, with a special focus on price trends and the underlying causes of price fluctuations. It also highlights some policy issues associated with recent market developments and draws lessons in the form of policy recommendations to assist commodity-dependent developing countries in their efforts to achieve inclusive economic growth and sustainable development. The background note groups commodities into three categories, namely: (a) food and agricultural commodities (food, tropical beverages, vegetable oil seeds and oils, and agricultural raw materials); (b) minerals, ores and metals; and (c) energy (oil, gas, coal and renewable energy).

I. Recent developments in commodity markets

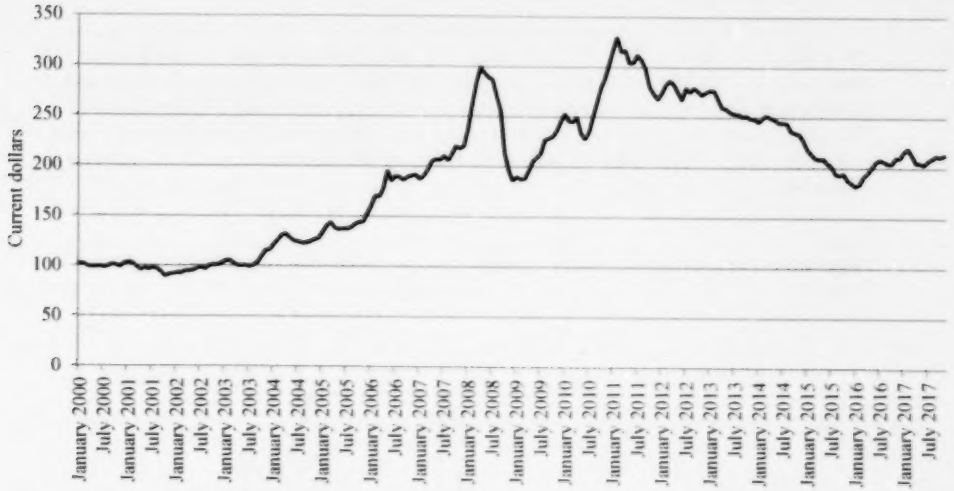
A. Overview

3. The UNCTAD non-oil nominal commodity price index[1] stood at 216.5 points in January 2017, which constituted an increase of 19.1 per cent from its January 2016 value of 181.8 points (figure 1). During the first half of 2017, the UNCTAD non-oil nominal commodity price trended downward, reaching 203.5 points in June, before a trend reversal driven by rising prices of minerals, ores and metals brought the index up to 212.7 points in November 2017. Overall, commodity prices remained significantly lower than at the peak of the last commodity boom in the 2000s.

4. While commodity prices increased across the board in 2016, the picture in 2017 was much more complex. On the one hand, the prices of minerals, ores and metals significantly increased in 2017, driven by strong demand and concerns over supply for some base metals. On the other, the upward trend in prices of food and agricultural raw materials that began in 2016 reversed in 2017. On energy markets, the most notable development in 2017 was the rise of the price of oil to a two-year high, triggered by supply cuts agreed to by major Organization of the Petroleum Exporting Countries and non-member producers, first in December 2016 and extended subsequently in May 2017 and again in November 2017 (see chapter I, section B.3).

[1] The UNCTAD non-oil nominal commodity price index covers the following subgroups of commodities: all foods (food, tropical beverages, vegetable oilseeds and oils), agricultural raw materials and minerals, ores and metals.

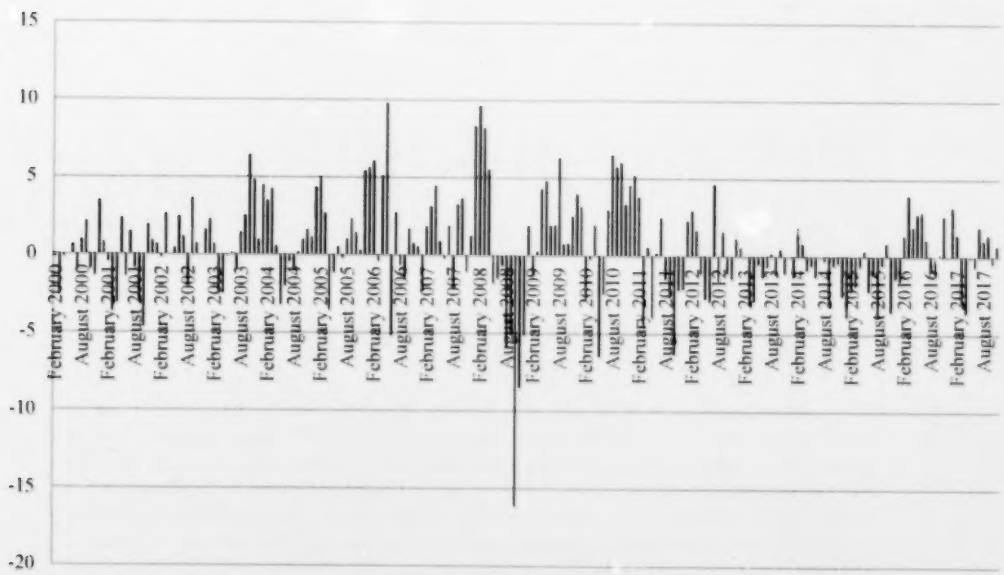
Figure 1
UNCTAD non-oil commodity price index, January 2000–November 2017
(2000 = 100)



Source: UNCTAD secretariat calculations based on data from UNCTADstat.

5. Commodity price fluctuations have been moderate in the past five years (figure 2). The last time the UNCTAD non-oil nominal commodity price index recorded a monthly swing of more than 5 per cent was in October 2011. However, individual commodities have experienced substantial price fluctuations. The following section reviews market developments in major commodity groups.

Figure 2
Monthly fluctuations of the UNCTAD non-oil nominal commodity price index, February 2000–November 2017
(2000=100)



Source: UNCTAD secretariat calculations based on data from UNCTADstat.

B. Developments in key commodity sectors

1. Food and agricultural commodities

6. The UNCTAD food price index reached its lowest value in seven years, at 191.1 points, in January 2016. For the following six months, the index trended upward mainly due to El Niño-related adverse weather conditions that caused output shortfalls and uncertainties. Since mid-2016, food prices have been fluctuating around a downward trend. All subindices of the UNCTAD food price index saw marked losses between January and November 2017, with tropical beverages experiencing the sharpest drop, at -8.8 per cent (figure 3).

Figure 3
Price indices of selected commodity groups, January 2000–November 2017
(2000=100)

Source: UNCTAD secretariat calculations based on data from UNCTADstat.

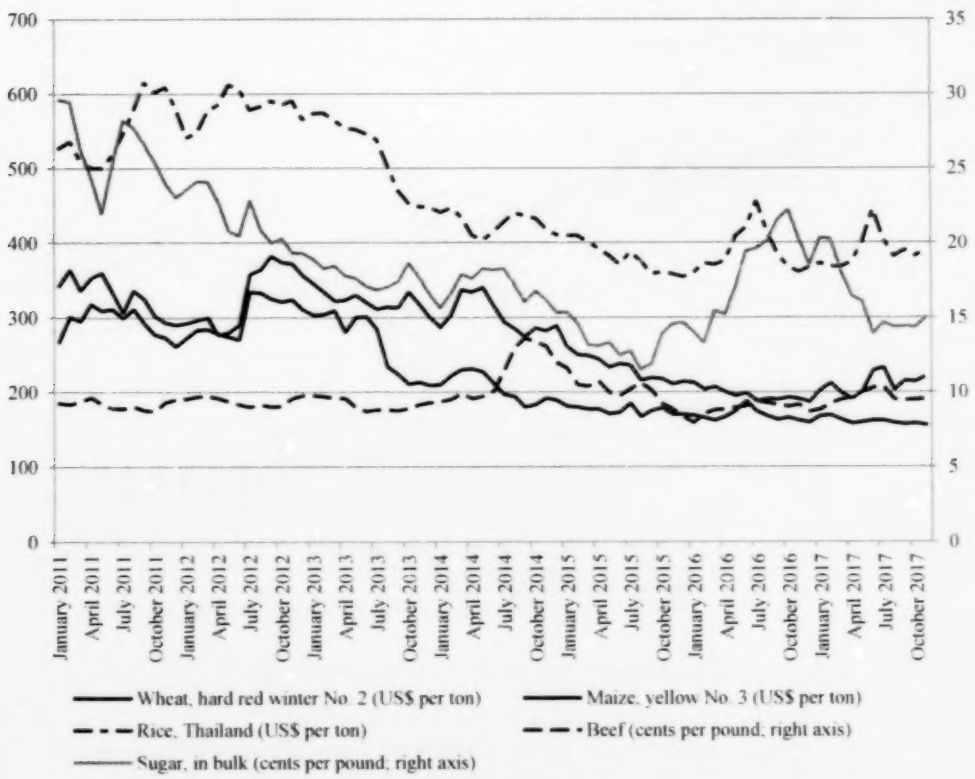
7. Grain prices have been generally trending downward since 2012, mainly due to strong production and increasing stocks (figure 4). The 2016/17 season marked a record production of wheat and maize, leading to the largest-ever recorded global supply of grains. As a consequence, the price of maize (yellow No. 3) reached its lowest level in more than a decade, at $156 per ton in November 2017. The price of wheat (hard red winter No.2) stood at $191 per ton in April 2017, down 4.5 per cent year-on-year, but thereafter climbed to $233 per ton in July 2017 due to concerns over drought affecting yields in Canada and the United States of America. In November 2017, the price of wheat stood at $221 per ton, 8.9 per cent higher than in January 2017.

8. Going forward, grain markets are expected to remain fairly stable, subject to favourable weather conditions. The International Grains Council projects wheat and maize production for the 2017/18 season at 749 million tons and 1,040 million tons, respectively, slightly below the levels in the 2016/17 season.[2] Strong demand forecast is projected to lead to a moderate reduction of maize stocks, which could generate a mild price increase, while wheat stocks are expected to increase slightly, despite growing consumption.

9. Rice markets saw a brief price rally in the second quarter of 2017, when the price of Thai rice increased by 18.7 per cent, from $375 per ton in April to $445 in June, fuelled by heightened import demand and the finalization of the Government's programme to liquidate rice stocks (figure 4). Thereafter, the price of Thai rice receded and stood at $390 per ton in November 2017, 4.8 per cent higher than in January 2017. The market outlook for rice remains calm, with production forecasts only slightly below the record crop of the 2016/17 season.

10. Sugar markets are forecast to feature a global supply surplus in the 2017/18 season, following two seasons of deficit. Consequently, the price of sugar (average of International Sugar Agreement daily prices) followed a downward trend in 2017 and fell by 26.3 per cent, from 20.33 cents per pound in January 2017 to 14.98 cents per pound in November 2017 (figure 4). Going forward, forecasts of a record global supply suggest that price increases are not to be expected for the upcoming season despite growing demand.

Figure 4
Nominal prices of selected food and agricultural commodities, January 2011–November 2017



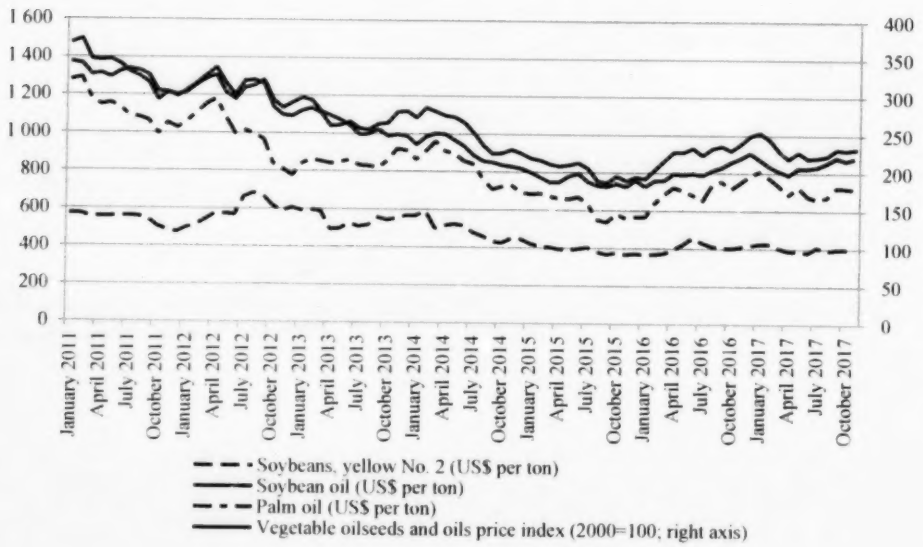
Source: UNCTAD secretariat calculations based on data from UNCTADstat.

[2] International Grains Council, 2017, Grain Market Report No. 483, 23 November.

11. The price of Australian and New Zealand frozen beef reached its all-time high in September 2014, at 272 cents per pound, due to tight supply conditions. Thereafter, rising supply and weakening demand triggered a downward trend through 2016. In 2016, beef markets showed less volatility and a moderate upward price trend in the first half of the year, followed by a mild downward trend in the second half of 2016. Fuelled by strong demand, the price of beef increased by 16.9 per cent, from 177 cents per pound in January 2017 to 207 cents per pound in July 2017, but levelled off to 191 cents per pound in November 2017. Going forward, price increases seem unlikely based on projections showing strong supply.

12. The UNCTAD vegetable oilseeds and oils price index showed a downward trend between August 2011 and September 2015, losing 42.7 per cent of its value during the period (figure 5). In 2016, this trend somewhat reversed, owing to shortfalls in production of oilseeds such as soybeans in South America and palm oil in South-East Asia, due to adverse weather conditions caused by El Niño. Projections of a record production for soybeans for the 2016/17 growing season led to a decline in prices of vegetable oilseeds and oils during the first quarter of 2017, and prices have remained relatively low throughout 2017. In November 2017, the vegetable oilseeds and oils price index averaged 232 points, 2.3 per cent down on a year-on-year basis. Forecasts for 2017/18 show increasing demand but also rising total oilseed production, and thus prices are expected to remain fairly stable.

Figure 5
Prices of selected commodities in vegetable oilseeds and oils market, January 2011–November 2017



Source: UNCTAD secretariat calculations based on data from UNCTADstat.

13. The price index of tropical beverages followed a downward trend in 2017, averaging 177 points in November 2017, down 8.8 per cent from January 2017 (figure 6). The decrease in the composite index in 2017 was largely driven by a substantial drop in coffee prices, with robusta and arabica coffees dropping by 14.5 per cent and 12.7 per cent, respectively, between January and November 2017. Amid benign weather conditions and healthy supply forecasts for major producing countries, the International Coffee Organization composite indicator price fell by 15.7 per cent, from 139 cents per pound in January 2017 to 117 cents per pound in November 2017. Forecasts of healthy production

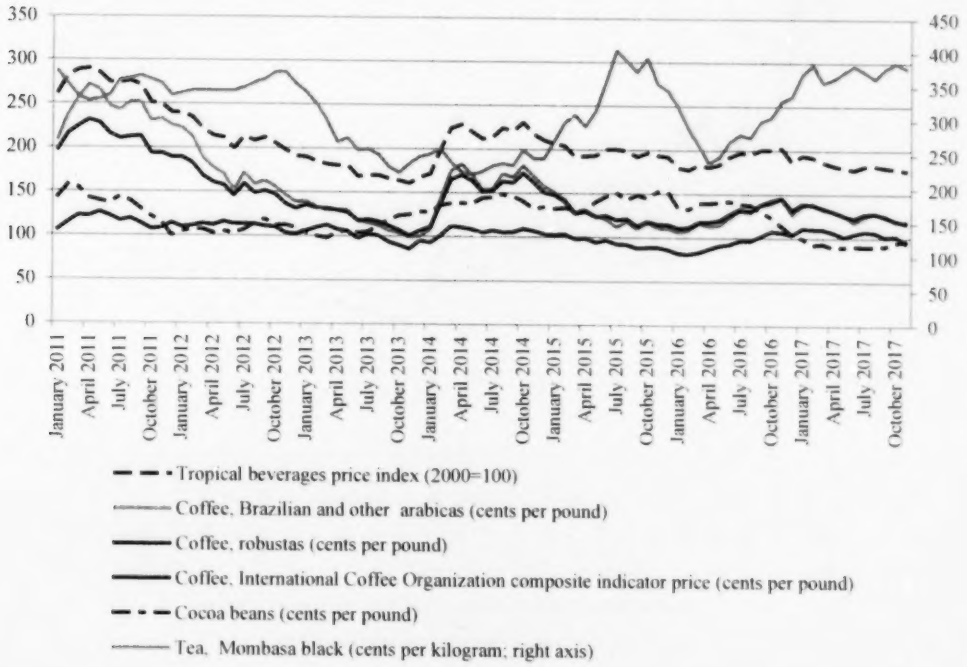
during the 2017/18 growing season indicate that price increases are unlikely over the medium-term unless unfavourable weather conditions impact on harvests.

14. The price of cocoa beans started to trend downward in July 2016 amid predictions of increasing production in West Africa and a forecast supply surplus for the 2016/17 season. Fuelled by expectations of significant production increases in Côte d'Ivoire and Ghana, and a record supply surplus, the price of cocoa beans averaged 89 cents per pound, its lowest level in almost a decade. The price of cocoa beans remained subdued throughout the second and third quarters of 2017, and thereafter moderately increased to 96 cents per pound in November 2017, based on concerns over excess rain in Côte d'Ivoire that had spread crop diseases. Overall, the cocoa market is expected to remain in surplus, and cocoa bean prices are therefore unlikely to increase significantly in the near future.

15. The markets for tea have been characterized by a high degree of variability over the past two years. In July 2015, the price of Mombasa black tea reached an all-time high average of 403 cents per kilogram. Thereafter, the price plummeted to 238 cents per kilogram in April 2016, a drop of 41 per cent in nine months. After another trend reversal in mid-2016, the price of Mombasa black tea averaged 378 cents per kilogram in November 2017, up 15.1 per cent on a year-on-year basis. The price of tea is expected to remain volatile in 2018, as weather-related risks in the main growing regions make supply forecasts difficult.

Figure 6

Prices trends of selected tropical beverage commodities, January 2011–November2017



Source: UNCTAD secretariat calculations based on data from UNCTADstat.

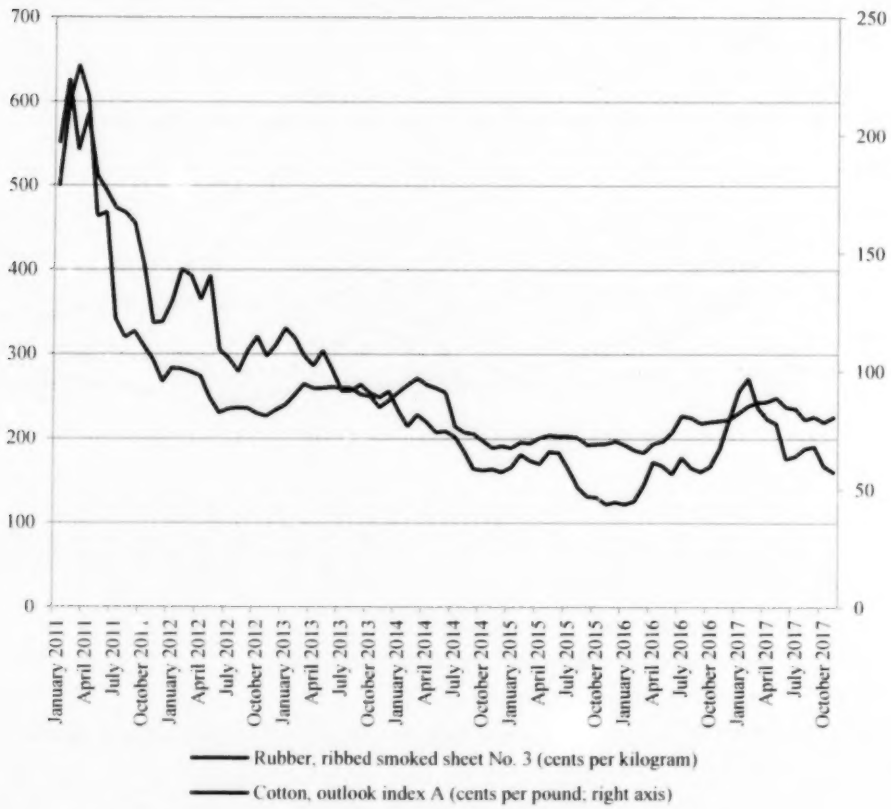
16. Prices of agricultural raw materials followed a steep downward trend between the peak of the commodity boom period in 2011 and 2015 (figure 7). For instance, the price of rubber (ribbed smoked sheet No. 3) plummeted from 626 cents per kilogram in February 2011 to 165 cents per kilogram in January 2015, a decrease of 73.6 per cent. In March 2016, major producers, including Indonesia, Malaysia and Thailand, set in force an export quota scheme, which induced a trend reversal and brought the rubber price up to 223 cents per kilogram in April 2017. However, rubber prices dropped again thereafter and stood at 160 cents per kilogram in November 2017. In December 2017, the Governments of

Indonesia, Malaysia and Thailand decided to withhold exports of 350,000 tons of rubber through 31 March 2018, which can be expected to stabilize prices in the near term.

17. The price of cotton (cotton outlook index A) declined by 70.7 per cent, from 230 cents per pound at the peak of the last commodity price boom in March 2011 to 67 cents per pound in January 2015. Thereafter, prices remained essentially flat through March 2016 when an upward trend set in. The cotton outlook index A reached 89 cents per pound in May 2017, which constituted a 26.1 per cent increase on a year-on-year basis, before receding to 80 cents per pound in November 2017. The International Cotton Advisory Committee predicts global production to increase by 11 per cent to 25.4 million tons in 2017/18, slightly higher than the projected global demand of 25.2 million tons;[3] hence, also taking significant global stocks into consideration, a decrease in the cotton price in 2018 seems likely.

Figure 7

Price trends of selected commodities in agricultural raw materials markets, January 2011–November 2017



Source: UNCTAD secretariat calculations based on data from UNCTADstat.

2. Minerals, ores and metals

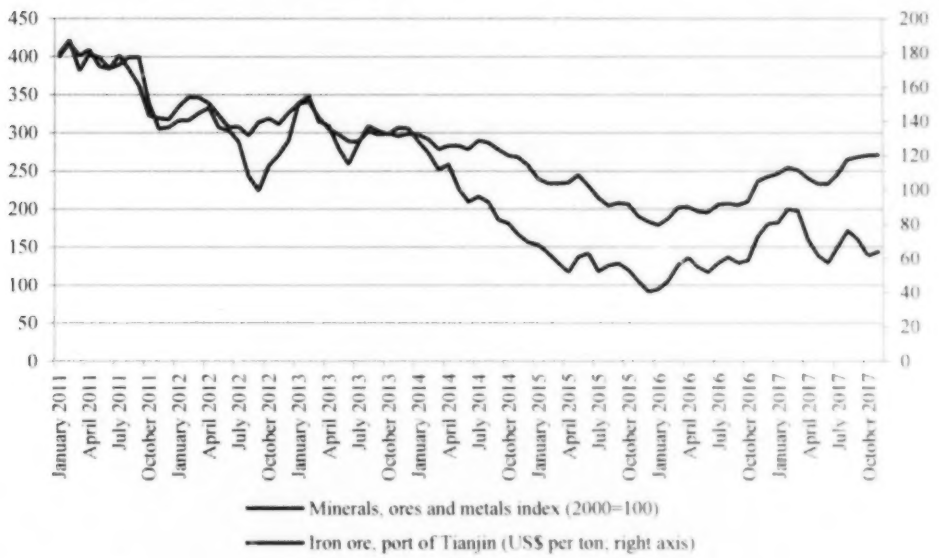
18. Mineral, ore and metal prices trended downward for almost five years following their peak in early 2011. Between February 2011 and January 2016, the UNCTAD minerals, ores and metals price index fell from 418 points to 178 points, corresponding to a

[3] International Cotton Advisory Committee, 2018, Global cotton consumption projected to increase in 2017/18, 3 January. Available at https://www.icac.org/Press-Release/2018-(1)/PR-1-2018-Global-Consumption-Increasing.

loss of 57.3 per cent.[4] The downward trend was broken in 2016 with the price index reaching 239 points in December 2016. This price rally was mainly driven by supply cuts and uncertainties, in particular in the markets for nickel, copper and zinc. On a year-on-year basis, the UNCTAD minerals, ores and metals price index gained 37.8 per cent in January 2017. This upward trend was briefly interrupted at the end of the first quarter, but resumed at the beginning of the third quarter. The UNCTAD minerals, ores and metals price index stood at 271 points in November 2017, up 10.1 per cent from 246 points in January 2017 (figure 8).

19. The price of iron ore is strongly driven by consumption in China, as the country imports more than two thirds of total seaborne iron ore. In particular, steel production in China is an important indicator of the demand for iron ore. As growth in steel production in China slowed in 2014 and turned negative in 2015, the price of imported iron ore at the port of Tianjin lost 70.3 per cent of its value, from $136 per dry ton in December 2013 to $40 per dry ton in December 2015 (figure 8). Thereafter, the price of iron ore picked up and almost doubled between January and December 2016, based on recuperating demand from China and reduction of output from high-cost mines. Weakening demand for steel in China and oversupply concerns caused a drop in the price of iron ore, to $57 per dry ton in May 2017. The iron ore price was volatile during the second half of 2017 and stood at $64 per dry ton in November 2017, 21.1 per cent lower than in January 2017. Going forward, favourable supply conditions and projections of low growth for steel demand in 2018 make substantial price increases unlikely in the near future.

Figure 8
Minerals, ores and metals price index and iron ore nominal price



Source: UNCTAD secretariat calculations based on data from UNCTADstat.

20. The price of copper at the London Metal Exchange reached its highest level ever recorded, at $9,867 per ton, in February 2011. Thereafter, an extended downward trend brought the copper price down to just over half of its peak level at $4,458 per ton in January 2016 (figure 9). Between June 2016 and February 2017, the price of copper rallied by 28.3 per cent, while another growth spurt starting in May 2017 brought the price of copper to $6,828 per ton in November 2017. Expectations of strengthening growth in

[4] The index covers copper, aluminium, iron ore, nickel, lead, zinc, tin, phosphate rock, manganese ore and tungsten ore. Gold is not included.

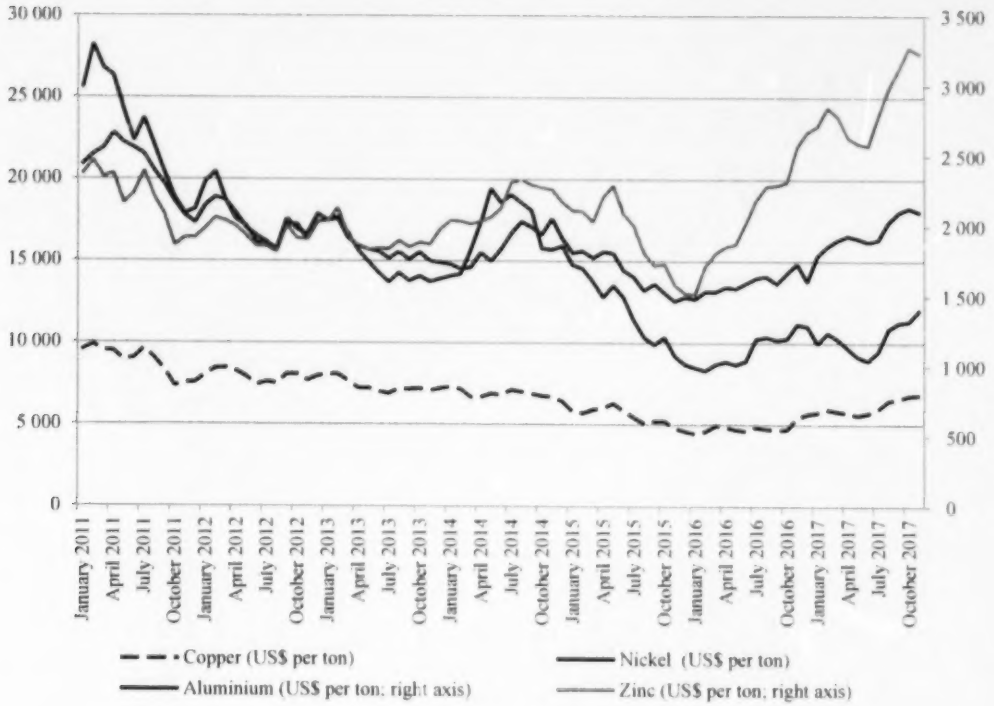
demand from China and concerns over supply disruptions were key fundamental factors driving the upward price trend. With the demand and supply forecast of the International Copper Study Group projecting a copper deficit for 2018, a further increase in the price of copper seems likely.

21. The price of aluminium fluctuated around an upward trend in 2016 and 2017, based on strong demand growth and closures of aluminium smelters in China. Between January 2016 and November 2017, the London Metal Exchange aluminium price increased by 42.0 per cent, from $1,479 per ton to $2,101 per ton in November 2017 (figure 9). Looking ahead, a potential deficit in global aluminium markets in 2018 could induce further price increases.

22. The price of nickel showed a brief deviation from its general downward trend in early 2014, when Indonesia implemented a ban on exports of unprocessed ore. After the Philippines increased nickel exports, in particular to China, the price of nickel resumed its downward trend, which persisted until early 2016 (figure 9). As a consequence, the London Metal Exchange nickel price lost 56.4 per cent of its value, from $19,047 per ton in July 2014 to $8,306 per ton in February 2016. Thereafter, mine shutdowns in the Philippines due to environmental concerns drove the price of nickel up to $11,010 per ton in December 2016, before receding to $8,928 per ton in June 2017. In the second half of 2017, nickel followed the general trend of rising base metal prices, increasing by 26.5 per cent from $9,479 per ton in July 2017 to $11,990 per ton in November 2017. With demand expected to remain strong in 2018, further price increases seem likely.

23. The price of zinc has been on an upward trajectory since the beginning of 2016, with a brief interruption in the first half of 2017 (figure 9). Mine closures and production cutbacks in conjunction with expectations of strong demand from China that led to a supply deficit were the main reasons for the zinc price rallying by 88.4 per cent between January 2016 and February 2017, when it reached its highest level since October 2007, at $2,848 per ton. After a brief period of falling prices between February and April 2017, the price of zinc continued to rise amid falling global zinc stocks, reaching $3,236 per ton in November 2017. Going forward, as the zinc market is expected to remain in deficit in 2018 despite new mine supply entering the market, further price increases seem likely.

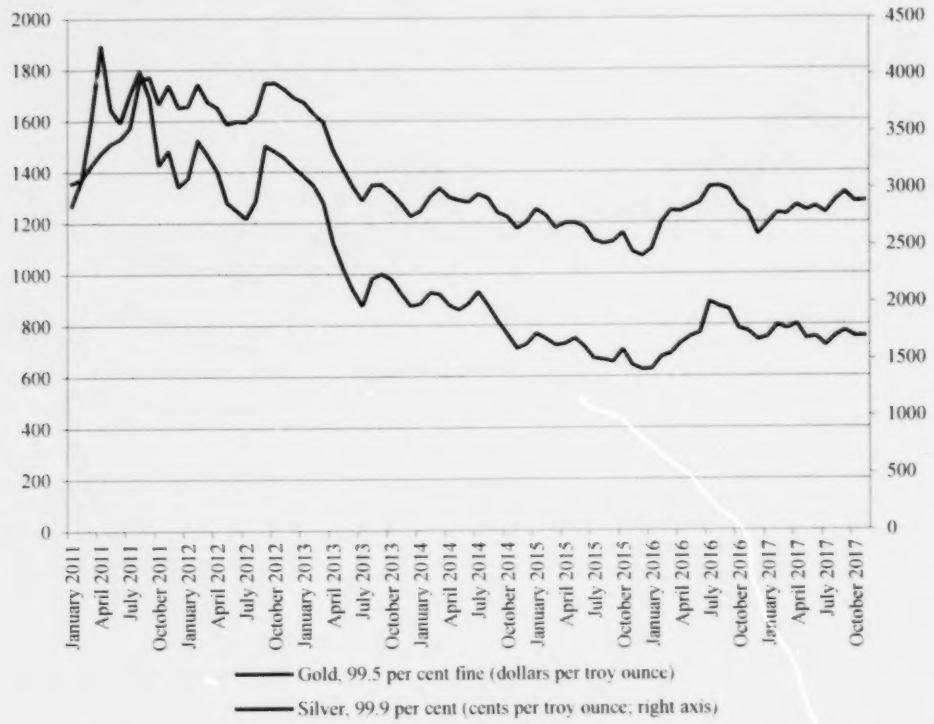
Figure 9
Nominal prices of selected minerals, ores and metals, January 2011–November 2017



Source: UNCTAD secretariat calculations based on data from UNCTADstat.

24. Precious metal prices increased significantly in the first half of 2016, driven by geopolitical and macroeconomic uncertainty and low interest rates in major economies (figure 10). Gold and silver prices decreased in the last quarter of 2016 amid the Federal Reserve Board of the United States of America raising the policy rate and a strengthening of the United States dollar. In 2017, the price of gold was volatile and stood at $1,282 per troy ounce in November 2017, 7.5 per cent higher than in January 2017. The price of silver was more volatile than the price of gold in 2017, averaging 1,698 cents per troy ounce in November 2017, only slightly higher than at the beginning of the year. Going forward, further increases in the policy rates of the United States remain a key downside risk to the price of precious metals, while upside risks include geopolitical conditions and potentially a weaker United States dollar.

Figure 10
Nominal prices of gold and silver, January 2011–November 2017



Source: UNCTAD secretariat calculations based on data from UNCTADstat.

3. Energy

Crude oil

25. The price of crude oil has been characterized by a high degree of variability over the past decade. Between January 2007 and May 2017, the average spot price of Brent crude oil[5] fluctuated between $133.9 per barrel and $30.8 per barrel (figure 11). The lowest price during this period, $30.8 per barrel, was recorded in January 2016 and constituted the lowest value since December 2003. Between June 2014 and January 2015, the oil price plummeted by 56.7 per cent, from $107.0 per barrel to $48.4 per barrel. Since then, the oil price has, overall, remained at depressed levels.

26. The main driver of the price collapse in late 2014 was an oversupply on the market that had its roots in the massive increase of shale oil production in North America, increasing production in other producers not members of the Organization of the Petroleum Exporting Countries and a slowdown of growth in crude oil demand. The build-up of large crude oil inventories compounded the supply–demand imbalance. According to data from the United States Energy Information Administration, global oil production increased from 93.7 million barrels per day in July 2014 to 97.5 million barrels per day in July 2015, with production by non-members of the Organization of the Petroleum Exporting Countries accounting for 46 per cent of the 3.8 million barrels per day increase in global production. Global consumption only increased by 2.6 million barrels per day in the same period, leading to a substantial increase in inventories.

[5] Henceforth referred to as the oil price.

27. As a reaction to the falling oil price, the Organization of the Petroleum Exporting Countries decided at its ministerial conference on 30 November 2016 to cut production by 1.2 million barrels per day starting in January 2017, with Saudi Arabia implementing the largest production cut, at 486,000 barrels per day. The production cuts were the basis of a deal signed on 10 December 2016 with major producers not members of the Organization, including the Russian Federation, in which non-member producer countries agreed to cut production by 558,000 barrels per day. The agreement to curtail production had a short-term impact, with the oil price rising by 20.0 per cent, from $46.4 per barrel in November 2016 to $55.5 per barrel in February 2017, before levelling down to $46.9 per barrel in June 2017.

28. On 25 May 2017, both the Organization of the Petroleum Exporting Countries and non-member producers decided to extend the production cuts, which had been limited to June 2017 in the original agreement, through March 2018. These supply cuts were a key driver of a steep rise of the oil price that reached $62.6 per barrel in November 2017, its highest level in more than two years. On 30 November 2017, the agreement to cut production was further extended to the end of 2018. The continued impact of these supply cuts will depend both on the degree of compliance as well as the extent to which oil producers that are not party to the agreement will step up output. For instance, the United States increased production by 4.7 per cent, from 14.71 million barrels per day in January 2017 to 15.4 million barrels per day in May 2017, which offset almost 40 per cent of the production cuts led by the Organization of the Petroleum Exporting Countries. While there might be technical and other limitations to further short-term production increases in the United States, the production cut agreed in May 2017 seems unlikely to be substantial enough to drive the oil price up to the levels of early 2014 on its own. In addition, inventories remain at high levels, which makes sharp increases in the oil price seem unlikely. In terms of upside risk, expectations of stronger demand growth could support a stronger oil price going forward.

Natural gas

29. Markets for natural gas have traditionally been regionalized due to physical limits to transport and different contractual arrangements prevailing in different regions. This has led to the coexistence of various reference prices that differ markedly at times and occasionally move in opposite directions. For instance, in February 2012, the border price in Germany for one million metric British thermal units (Btu) of natural gas from the Russian Federation was $12.22, while the price at the Henry Hub terminal in Louisiana was only $2.53 per million metric Btu.

30. The Henry Hub natural gas price, often cited as a global benchmark, reached $1.70 per million metric Btu in March 2016 (figure 11), which was the lowest level in more than 20 years, mainly owing to low consumption due to a mild winter. Thereafter, the Henry Hub natural gas price fluctuated around an upward trend, and the price averaged $2.87 per million metric Btu in October 2017. The United States Energy Information Administration forecasts demand for consumption and exports to outpace supply in 2018, leading to lower inventory levels. Hence, further increases of the Henry Hub natural gas price seem likely going forward.

31. Looking further ahead, the rapid expansion of liquefied natural gas infrastructure and new technology are likely to lead to a higher degree of global market integration. Global liquefaction capacity stood at 340 million tonnes per annum in January 2017, almost double its value of 171 million tonnes per annum in 2005.[6] With the construction of liquefaction capacity of over 100 million tonnes per annum expected in 2017, primarily in Australia and the United States, liquefaction capacity is expected to continue to grow at a rapid pace. In 2015, liquefied natural gas accounted for 32.5 per cent of global trade in natural gas.[7] Over the medium term, increased liquefied natural gas capacities could contribute to a convergence in natural gas prices.

Coal

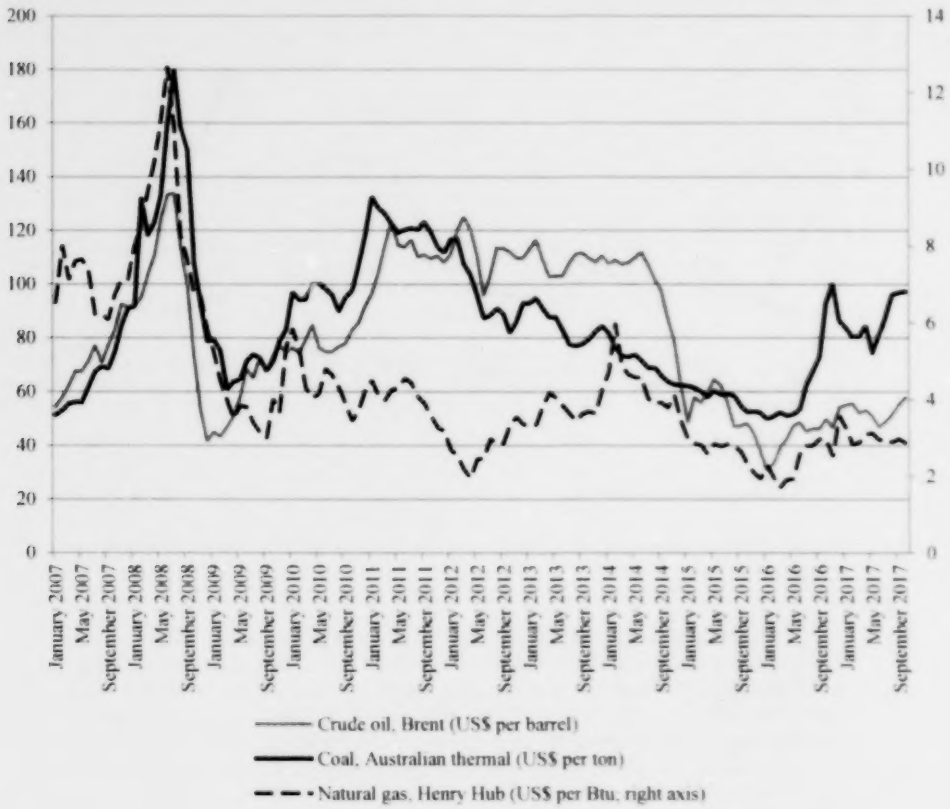
32. Coal continues to be the primary fuel for electricity generation at the global level. In addition, coal is a key source of thermal energy for the steel and cement industries. As coal is also responsible for 45 per cent of energy-related carbon emissions, reducing its share in the global energy mix remains a key challenge in the context of climate change mitigation. According to forecasts by the International Energy Agency, the share of coal in power generation is on a downward trajectory, and is expected to drop from 41 per cent in 2014 to 36 per cent in 2021.

33. The price of Australian thermal coal fluctuated around a downward trend between early 2014 and mid-2016, which was mainly driven by persistent oversupply and sluggish import demand from China. Thereafter, the price of coal experienced a sharp increase, from $56 per metric ton in June 2016 to $111 per metric ton in November 2016, based on tightened supply and increased import demand from China, where domestic production was cut to reduce oversupply and increase profitability in the coal sector. After supply conditions improved, mainly due to a partial rollback of production restrictions in China, the price of coal receded to $81 per metric ton in June 2017. In the second half of 2017, strong demand from China and other Asian countries caused an increase of the price of coal, to $97 per metric ton in October 2017. Looking ahead, in light of ample supply capacity, further increases in the price of coal seem unlikely.

[6] International Gas Union, 2010, *World Liquefied Natural Gas Report* (Barcelona, Spain); International Gas Union, 2017, *World Liquefied Natural Gas Report* (Barcelona, Spain).

[7] Based on data from BP, 2016, *Statistical Review of World Energy* (London).

Figure 11
Crude oil (petroleum), coal and natural gas prices, January 2007–October 2017



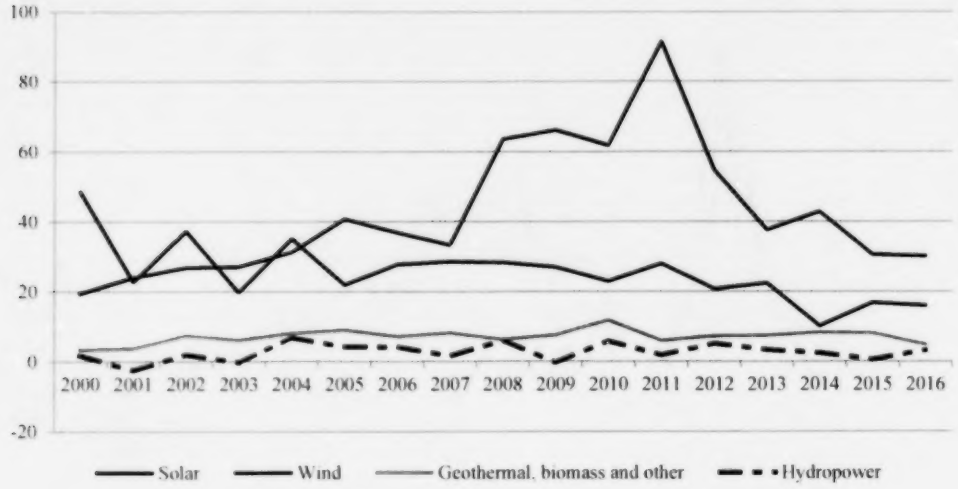
Source: UNCTAD secretariat calculations based on data from UNCTADstat and World Bank Global Economic Monitor Commodities database (accessed 14 January 2018).

Renewable energy

34. The International Energy Agency projects global renewable electricity capacity to expand by over 920 gigawatts between 2017 and 2022, an increase of 43 per cent. Substantial capacity growth in onshore wind and solar photovoltaics contributed to a record growth in renewable electricity capacity of almost 165 gigawatts in 2016.[8] For more than a decade, solar photovoltaics showed the highest growth rate in terms of renewable energy consumption followed by wind (figure 12). China continues to account for the largest share of global expansion in renewable energy sources, with large additions both in onshore wind and photovoltaic capacity. The capacity for renewables is growing in many countries and regions, including India, the United States and the European Union.

[8] International Energy Agency, 2017, Executive summary, *Renewables 2017: Analysis and Forecasts to 2022*, Market Report Series.

Figure 12
Annual growth rates of renewable energy consumption by type



Source: UNCTAD secretariat calculations based on data from BP, 2017, *BP Statistical Review of World Energy*, June.

35. The growing deployment of renewable energy technologies has led to significant reductions in costs, which has enhanced the competitiveness of renewables in comparison with fossil fuels. For instance, onshore wind has become one of the cheapest sources of electricity with a levelized cost of electricity[9] of $0.07 per kilowatt hour for plants commissioned in 2016,[10] lower than that from coal-fired power plants in member States of the Organization for Economic Cooperation and Development.[11] Further potential cost reductions in renewables over the medium term are substantial, with the levelized cost of electricity of solar photovoltaics, concentrated solar power and offshore wind potentially dropping by 59 per cent, 43 per cent and 35 per cent, respectively, by 2025.[12]

36. Continued expansion of renewables is a key building block for the achievement of the 2030 Agenda for Sustainable Development and the aim to keep the increase in the global average temperature to "well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels" (article 2 of the Paris Agreement under the United Nations Framework Convention on Climate Change). Expanding the generation of renewable energy also has the potential to dramatically increase access to electricity in rural areas in developing countries, helping them to achieve Sustainable Development Goal 7 on energy, which aims at ensuring access to affordable, reliable, sustainable and modern energy for all. In this context, a supportive policy environment remains crucial for renewables, in particular in the light of low fossil fuel prices.

[9] Levelized cost of electricity is a summary measure of the overall competitiveness of different generating technologies. It represents the per-kilowatt-hour cost of building and operating a generating plant over an assumed financial life and duty cycle (see United States Energy Information Administration, 2017, available at https://www.eia.gov/outlooks/aeo/pdf/electricity_generation.pdf).

[10] International Renewable Energy Agency, 2017, Renewable power: Sharply falling generation costs. Available at https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2017/Nov/IRENA_Sharply_falling_costs_2017.pdf.

[11] International Renewable Energy Agency, Renewable power generation costs in REMAP 2030. Available at http://wasaproject.info/docs/IRENA_REmap2030/REmap-FactSheet-7-Cost+Competitive.pdf.

[12] International Renewable Energy Agency, 2016, *The Power to Change: Solar and Wind Cost Reduction Potential to 2025*.

II. Some policy issues arising from recent market developments

37. The volatility of international commodity markets over the past decade highlights the importance of diversification and strengthening domestic value addition through structural transformation for commodity-dependent developing countries. These aspects are treated in depth in an accompanying report, prepared for the 2018 session of the Multi-year Expert Meeting on Commodities and Development, which focuses on diversification and value addition.[13] Other key policy issues related to recent developments on commodity markets include links between commodity dependence and the Sustainable Development Goals, the importance of considering potential developments on international commodity markets when designing domestic commodity sector policies and the role of renewables in sustainable development.

A. Promoting inclusive development in commodity-dependent developing countries

38. There are several direct and indirect linkages between developments in the international commodity markets and the Sustainable Development Goals. For instance, commodity price shocks can impact both food security and poverty indicators in developing countries. In this context, it should be noted that the extent to which developments in international commodity markets affects economic and social conditions in developing countries depends on existing policy frameworks. Policies such as social safety nets can mitigate the negative impact of commodity price shocks on the low-income segments of a population, while redistributive policies are needed to ensure windfall revenue is more widely shared.

39. The experience of some countries during the commodity boom of the 2000s could be seen as illustrative. In this regard, between 2004 and 2010, Zambia, a major exporter of copper, experienced annual average gross domestic product per capita growth of above 5 per cent, driven by the sharp increase in global copper prices. During the same period, however, official data indicate that the poverty head count ratio and the prevalence of undernourishment increased, from 56.7 and 48.5 per cent to 64.1 and 51.7 per cent of the population, respectively.[14] This example demonstrates that there is no automatic process linking commodity price booms with improvements in the living conditions of the poor in commodity-dependent developing countries. Rather, policies should be adopted to ensure that upward commodity price movements contribute to meeting the Sustainable Development Goals.

B. Ensuring efficient risk management in domestic commodity sector policies

40. When designing national commodity sector policies, the links between international commodity markets and local conditions need to be considered. In this context, managing risks due to unanticipated commodity price movements is of key importance. Recent developments in the cocoa sector in Côte d'Ivoire provide important lessons in this regard. As part of reforms in the cocoa sector a mechanism of forward selling anticipated crop and guaranteed minimum producer prices was introduced. At the beginning of the 2016/17 marketing season, when the international price of cocoa stood at 123 cents per pound, the Government set producer prices at around 85 cents per pound. However, the price of cocoa thereafter plummeted to 90 cents per pound in July 2017. Many traders who had agreed to buy cocoa in advance defaulted on their contracts as the margin between producer prices and international market prices was not sufficient to make a profit. Consequently, the

[13] TD/B/C.I/MEM.2/42.

[14] World Bank, World Development Indicators database. Available at https://datacatalog.worldbank.org/dataset/world-development-indicators (accessed 13 February 2018).

livelihoods of many smallholder farmers who depended on cocoa as their main source of income were threatened.[15]

41. Equitable risk sharing along the value chain and efficient overall risk management are crucial to avoid excessive hardship in case of unfavourable international commodity price developments. Risk management tools could include insurance mechanisms or stabilization funds. In general, commodity sector policies should aim at ensuring that commodity price movements do not harm the most vulnerable segments of the population.

C. Promoting and benefiting from a transition towards sustainable energy

42. Low fossil fuel prices represent an obstacle to the expansion of renewables. Particularly in electricity generation, there is direct competition between natural gas and coal, on the one hand, and renewable energy sources such as wind and solar photovoltaics, on the other. A supportive policy environment is therefore crucial to maintain momentum for a transition towards sustainable global energy architecture. This includes scaling back harmful and costly subsidies for fossil fuels, which the International Monetary Fund estimated at $5.3 trillion in 2015.[16] Also, policies supporting the deployment of renewables, such as setting targets for the share of renewables in the national energy mix and ensuring access to finance for investments in renewables, remain important.

43. Beyond its contribution to climate change mitigation, renewable energy expansion can also contribute to development objectives, including achievement of the 2030 Agenda for Sustainable Development. Globally, more than 1 billion people still do not have access to electricity. Renewable energy solutions can help to provide access to clean energy where it is lacking, for instance in remote areas where there is no grid connection. More generally, a transition towards cleaner and renewable energy sources can entail many benefits in terms of lower environmental pollution, health benefits and reduced dependence on a single source of energy.

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[15] The issue was covered broadly in the media. See, for example, *Reuters*, 2017, Ivory Coast [Côte d'Ivoire] slashes cocoa farmers' price for mid-crop, 30 March, available at https://www.reuters.com/article/us-cocoa-ivorycoast/ivory-coast-slashes-cocoa-farmers-price-for-mid-crop-idUSKBN1712QA; AllAfrica, 2017, West Africa: Falling cocoa prices threaten child labour spike in Ghana, Ivory Coast [Côte d'Ivoire], 12 June, available at http://allafrica.com/stories/201706160709.html; and *Bloomberg*, 2017, Ivory Coast [Côte d'Ivoire] cuts cocoa farmers pay by third for main harvest, 2 October (available at https://www.bloomberg.com/news/articles/2017-10-01/ivory-coast-cuts-cocoa-farmers-pay-by-third-for-main-harvest). See also International Cocoa Initiative, 2017, Briefing paper, 22 June.

[16] International Monetary Fund, 2015, How large are global energy subsidies? Working Paper 15/105.